



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

David. S. Allison

Confirmation No.: 3306

Application No.: 09/977,715

Art Unit: 2194

Filed: October 12, 2001

Examiner: L. B. Zhen

For: METHOD AND APPARATUS FOR
COMMUNICATION TO THREADS OF
CONTROL THROUGH STREAMS

DECLARATION PURSUANT TO 37 CFR §1.131

In connection with the Applicant's Response to the Office Action dated October 5, 2006, this Declaration sets forth the pertinent facts proving conception of the claimed invention at least prior to **February 1, 2001**.

1. I, David S. Allison, am the sole inventor for U.S. Patent Application Serial No. 09/977,715 entitled "Method and Apparatus for Communication to Threads of Control through Streams."
2. I, David S. Allison, conceived the claimed invention on or before February 1, 2001, as evidenced by the enclosed invention disclosure statement, including a written description of the invention, submitted to the present Assignee on February 1, 2001 (*see* Tab 1).
3. I, David S. Allison, conceived the claimed invention, in the United States, prior to at least February 1, 2001.
4. I, David S. Allison, diligently worked on the reduction to practice of the invention from at least the date established by the invention disclosure

statement (referenced above and shown under Tab 1) until at least the date of constructive reduction to practice established by the filing of U.S. Patent Application No. 09/977,715 on October 12, 2001, as evidenced by the correspondences between various parties regarding the preparation of the patent application for the present invention between July 5, 2001 and October 12, 2001 (*see* Tab 2).

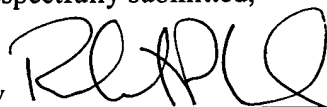
I, David S. Allison, hereby declare that all statements made herein of my own knowledge are true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

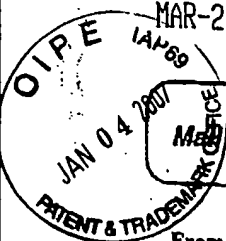
Signed this 7th day of December 2006.


David S. Allison

Dated: January 4, 2007

Respectfully submitted,

By 
Robert P. Lord
Registration No.: 46,479
OSHA · LIANG LLP
1221 McKinney St., Suite 2800
Houston, Texas 77010
(713) 228-8600
(713) 228-8778 (Fax)
Attorney for Applicant



MAR-29-01 THU 02:53 PM SMI CTO LEGAL DEPT

FAX NO. 6503362592

P. 23

Mail for **Diane Terry-Davis**

Mon, 5 Feb 2001 19:19:50 -0800 (PST)

Page
1

From: Maria Moore <Maria.Moore@corp.sun.com>
To: david.allison@eng.sun.com
Cc: diane.terry-davis@eng.sun.com, kristine.bombaci@corp.sun.com, maria.moore@co
Subject: P5944 - Invention Disclosure - Allison
Date: Mon, 5 Feb 2001 19:19:50 -0800 (PST)

David,

Here's a copy of your disclosure with the Sun reference number assigned to it (P5944). Please use this reference number when referring to this matter in the future. Should you have questions regarding the status of this disclosure, please contact your Managing Sun Attorney (listed below).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

7056-201

36504 ALLISON, DAVID david.allison@Eng UMPK31-101

----- Begin Forwarded Message -----

X-Unix-From: dallison@atabank1.eng.sun.com Thu Feb 1 16:12:41 2001
Date: Thu, 1 Feb 2001 16:12:33 -0800 (PST)
To: inventions@corp.sun.com
Subject: invention disclosure

[ASCII IDT, html version 1.5.3, rev. 11/09/00]

NEW INVENTION DISCLOSURE BY (David Allison)
(email address: david.allison@eng.sun.com)

Email the completed ASCII IDT to inventions@Corp.

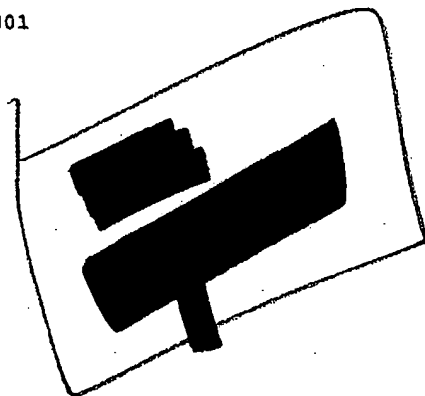
The ASCII IDT can be retrieved from the SunWeb at:

<http://patents.corp/IDT.ascii>

You can also complete the IDT as a Web form, which can be found at:

<http://patents.corp/>

PLEASE ANSWER ALL QUESTIONS (search for XXXXX) (OR PLACE A "N/A" IN THE SPACE).



P5944 - Invention Disclosure - Allison

Mail for Diane Terry-Davis**Mon, 5 Feb 2001 19:19:50 -0800 (PST)****Page
2**

FAILURE TO DO SO MAY CAUSE THE DISCLOSURE TO BE RETURNED

=====

8. YOUR DIVISION/BUSINESS ORGANIZATION

Please select the appropriate division/business organization for this invention and delete the rest. Please do this step carefully.

Your Business Organization is:

CTO: Sun Labs CA

Attorney Responsibility:

Sun Primary Attorney:

Managing Sun Attorney:

=====

1. TITLE: Method for communication to threads of control through streams

2. BACKGROUND AND RELATED ART

A. What is the technical problem which your invention addresses as specifically as you can. (If the technical problem is described in a document, article, book, etc., please give details in the next question.)

Communication with a set of threads running in a program through the use of standard stream operator in a dynamically typed language.

B. What is the Closest Related Art?

Please list the closest related art of which you're aware, including (1) published articles, books, etc.; (2) patents; (3) products (developed by Sun or another company); or (4) any other information you or your colleagues may be aware of at this time. Please give date(s) of all references, if known. Note that you do not have to do a prior art search! If you're unaware of any relevant prior art, please say so.

Unknown

3. DRAWING(S)

Drawings for this invention are unavailable (available/unavailable).

Drawings will be provided upon request: TRUE
(TRUE OR FALSE)

If you have drawings or diagrams that illustrate the invention, please send them to us (e.g. Postscript documents by email). These can include circuit schematics, structures, process steps, a program

P5944 - Invention Disclosure - Allison

Mall for Diane Terry-Davis**Mon, 5 Feb 2001 19:19:50 -0800 (PST)****Page****3**

flowchart, block diagrams, high-level pseudocode, etc., as applicable. If you have original drawings in your lab notebook, please send photocopies of the pertinent pages to: [REDACTED] Just say so. The patent attorney who writes up the application will generate drawings as needed after meeting with you about the disclosure.

You should wait to submit any documents until you have received a P-number or at least CLEARLY indicate: 1) the invention title; 2) your name; and 3) the date of the disclosure submission.

1. WRITTEN DESCRIPTION

Please provide a written description of the invention (with reference to the drawings) or send a hard copy to: Docketing Coordinator [REDACTED]

In your description, please indicate: (1) the problem(s) that the related art has been unable to solve; and (2) how your invention solves them. Stress the fundamental principle(s) of the invention from an engineering viewpoint.

If you already have a written description (such as a white paper) please note that here and send it by email or interoffice shuttle. (Email is preferable to inventions@Corp). However, please also provide a short (1-2 paragraph) description of the invention here, so we know what the focus is, since a white paper may cover many areas that are not this specific invention.

You should wait to submit any documents until you have received a P-number or at least CLEARLY indicate: 1) the invention title; 2) your name; and 3) the date of the disclosure submission.

The invention is described as follows:

(reference stream operator patent application) — 7056-205

A thread of control (or just thread) is a piece of a program that runs in parallel with other threads in the same program. Threads are started by the program and then all proceed at the same time as the program that started them.

Traditionally, communication to a thread is done through a synchronization scheme using semaphores, mutexes or other Locks. The method described here allows the same mechanism used for program input and output to be used for communication with running threads.

A thread is assigned 2 streams when it is created. Call these streams "input" and "output". The streams are connected to the thread at one end and to the parent thread at the other end. The thread can read from the "input" stream and write to the "output" stream using the regular stream operator.

The parent thread (the thread that started the child thread) can

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Mail for Diane Terry-Davis**Mon, 5 Feb 2001 19:19:50 -0800 (PST)****Page****4**

also use the streams to send and receive data from the child thread using the normal stream operator. The parent thread is informed of the stream when the child thread is started.

For example:

```
thread server {  
    var x = 0          // declare an integer variable  
    input -> x          // read from input  
  
    x -> output         // write to output  
}  
  
// start server thread and get stream to it  
var s = server()  
  
// send the integer 1 to the thread  
1 -> s  
  
// read a value from the thread to the variable 'p'  
s -> p
```

5. CONCEPTION OF INVENTION

Date of conception: Dec 1999
Date of first written description: Nov 2000

6. REDUCTION TO PRACTICE

Has the invention been reduced to practice? yes (yes or no).

Comments, if any, on conception of invention and/or first written description:

none

7. INVENTOR(S)

INVENTOR 1: This person should be the primary or technical contact for the invention.

Employee Number: [REDACTED]

First Name: David

Middle Initial: S

Last Name: Allison

Home Address: [REDACTED]

Citizenship: [REDACTED]

E-mail Address: [REDACTED]

Sun Phone: [REDACTED]

Sun Mailstop: [REDACTED]

If the person's payroll comes from a country that is NOT the US, please list the country: [REDACTED]

(Copy above fields for any other inventors.)

COMMENTS on inventors or inventorship:

P5944 - Invention Disclosure - Allison

Mall for Diane Terry-Davis

Mon, 5 Feb 2001 19:19:50 -0800 (PST)

Page

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N/A

9. DEPARTMENT, etc.

Department Name: Sun Labs
Department Manager: [REDACTED]
Project Name: Phaser
Product Name(s): Phaser

10. DATES OF PRODUCT TESTING AND RELEASE

[REDACTED]
[REDACTED]
[REDACTED]

11. DISCLOSURE OF INVENTION

[REDACTED]
[REDACTED]

12. INTERNAL DISCLOSURE(S)

[REDACTED]
[REDACTED]
[REDACTED]

13. ARTICLE(S)

[REDACTED]
[REDACTED]

N/A

14. ADVERTISEMENTS, PRESS RELEASES AND PRODUCT ANNOUNCEMENTS

[REDACTED]

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Mon, 5 Feb 2001 19:19:50 -0800 (PST)

**Page
6**

15. OUTSIDE DISCLOSURE(S)

16. TRADE SHOWS AND CONFERENCES

17. OUTSIDE COUNSEL

Do you have any preference to outside counsel?

18. RELATED CASES

ADDITIONAL COMMENTS BY INVENTOR:

P5944 - Invention Disclosure - Allison

Mail for Diane Terry-Davis

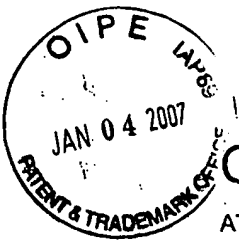
Mon, 5 Feb 2001 19:19:50 -0800 (PST)

**Page
7**

This invention disclosure was submitted by (David Allison), whose
email address is: [REDACTED]

----- End Forwarded Message -----

P5944 - Invention Disclosure - Allison



COUDERT BROTHERS

ATTORNEYS AT LAW

TWENTY-THIRD FLOOR
333 SOUTH HOPE STREET
LOS ANGELES, CALIFORNIA 90071
TEL: 213-229-2900
FAX: 213-229-2999
URL: <http://www.coudert.com>

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PRAGUE
GIESE AND
PARTNER

July 5, 2001

VIA FEDERAL EXPRESS

Mr. David S. Allison
2218 Tahiti Drive
San Ramon, CA 94583

David Allison
2218 Tahiti Dr.
San Ramon
94583

Re: U.S. Non-Provisional Patent Application Entitled:
**APPARATUS FOR COMMUNICATION TO
THROUGH STREAMS"**
Inventor(s): David S. Allison
Your Ref.: 0007056-0201
Our Ref.: P5944/RSB

Dear Mr. Allison:

Please find enclosed a draft of the above-referenced application. Please review the specification, claims, and drawings to assure that we have accurately described the subject matter of the invention and that the description of the invention is complete. By complete we mean (1) that the specification would enable one of ordinary skill in the art to practice the invention, and (2) the specification discloses the best mode. The best mode is simply the best way you know how to practice the invention at the time the application is filed.

If there are any corrections, please make them directly on the copy provided and return it to us. If you do not understand any of the subject matter, please call me so that we can revise the application, including the claims accordingly. If you find the application to be both correct and you are the inventor of the subject matter as claimed, please retain the application for your records and notify us that the application should be filed.

I would like to take this opportunity to remind you that we have a duty to disclose to the U.S. Patent and Trademark Office (PTO) any prior art that we are aware of which may be material to the examination of this application. If you are aware of anything that a reasonable examiner might consider important when examining the claims in this application, please bring it to our attention so that it can be disclosed to the PTO. Please be aware that the prior art includes not only patents and publications, but also products that have been used or sold in this country.

Mr. David S. Allison
July 5, 2001
Page 2

If there is some question on whether prior art is pertinent and should be disclosed, it is best to disclose it since failure to do so may result in the patent being unenforceable.

Once we receive instructions to file the application, we will promptly file the application as a non-provisional application with the U.S. Patent and Trademark Office.

If you have any questions or general comments, please do not hesitate to contact me.

Very truly yours,



J.D. Harriman II

JDH/mhl

Enclosures:

Specification, Claims, and Drawings
Disclosure of Prior Art Notice



COUDERT BROTHERS
ATTORNEYS AT LAW

TWENTY-THIRD FLOOR
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STOCKHOLM
SCHURMANN &
GROENBERG

July 20, 2001

VIA FEDERAL EXPRESS

Sean P. Lewis, Esq.
Patent Operations Manager
Sun Microsystems, Inc.
M/S: UPAL01-521
901 San Antonio Road
Palo Alto, CA 94303

Re: U.S. Non-Provisional Patent Application Entitled: **"METHOD AND APPARATUS
FOR COMMUNICATION TO THREADS OF CONTROL THROUGH STREAMS"**
Inventor(s): David S. Allison
Your Ref.: P5944/SPL
Our Ref.: 0007056-0201

Dear Sean:

Please find enclosed a draft of the above-referenced application for your review, together with a diskette containing the specification and claims. Please let us know if you have any comments or corrections to this application. Once we receive instructions to file the application, we will send you the formal documents for your execution and begin the process of filing the application as a non-provisional application with the U.S. Patent and Trademark Office.

We would also like to remind you of your continuing obligation to cite to the Patent Office all relevant prior art. Enclosed for your information is a notice entitled "Disclosure of Prior Art to the United States Patent and Trademark Office" which goes into more detail.

If you have any questions, please do not hesitate to contact me.

Very truly yours,

Micah Goldsmith

MG/mhl
Enclosures: Specification, Claims, and Drawings (Hard Copy)
Specification and Claims (Diskette)
Disclosure of Prior Art Notice



COUDERT BROTHERS
ATTORNEYS AT LAW

TWENTY-THIRD FLOOR
333 SOUTH HOPE STREET
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September 28, 2001

VIA FEDERAL EXPRESS

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OCT 12 2001

COUDERT BROTHERS

Mr. David S. Allison
2218 Tahiti Drive
San Ramon, CA 94583

**Re: U.S. Non-Provisional Patent Application Entitled: "METHOD AND
APPARATUS FOR COMMUNICATION TO THREADS OF CONTROL
THROUGH STREAMS"**
Inventor(s): David S. Allison
Your Ref.: P5944/SPL
Our Ref.: 0007056-0201

Dear Mr. Allison:

Please find enclosed a second draft (redlined version) of the above-referenced application for your review. I have also enclosed the following formal documents:

1. Declaration and Power of Attorney to be dated and signed by you in **blue ink** and return it to our office at your earliest convenience.
2. Assignment to be dated and executed by you in **blue ink** in the space indicated above your name and return it to our office at your earliest convenience.

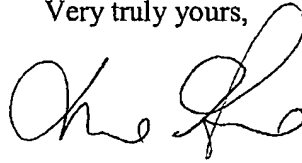
Mr. David S. Allison
September 28, 2001

Page 2

Once we receive the final approval of the application and the executed formal documents, we will begin the process of filing the application as a non-provisional application with the U.S. Patent and Trademark Office.

If you have any questions, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Micah Goldsmith', written in a cursive style.

Micah Goldsmith

MG:/mhl
Enclosures:

Specification, Claims, and Drawings
Assignment and Declaration



COUDERT BROTHERS LLP

ATTORNEYS AT LAW

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333 SOUTH HOPE STREET
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October 16, 2001

Sean P. Lewis, Esq.
Patent Operations Manager
Sun Microsystems, Inc.
M/S: UPAL01-521
901 San Antonio Road
Palo Alto, CA 94303

**Re: U.S. Non-Provisional Patent Application Entitled: "METHOD AND
APPARATUS FOR COMMUNICATION TO THREADS OF
CONTROL THROUGH STREAMS"**

Inventor(s): David S. Allison

Your Ref.: P5944/SPL

Our Ref.: 0007056-0201

Dear Sean:

Enclosed for your records is a copy of the specification, claims, drawings, and formal documents filed at the Patent Office on **October 12, 2001** in the above-entitled matter.

If you intend to file any foreign applications, we recommend filing within the priority year which expires on **October 12, 2002**. Your decision should preferably be made at least 45 days (before the due date of **August 28, 2002**) so adequate time will be available to prepare the necessary

Sean P. Lewis, Esq.
October 16, 2001
Page 2

documents, which may include translations, and to avoid foreign mail delays which has sometimes been encountered. We have calendared this date, and we will send you reminders as the date approaches.

We will keep you advised of any further developments in this case. In the meantime, if you have any questions, please do not hesitate to contact me.

Very truly yours,



J.D. Harriman II

JDH/mhl

Enclosures: Transmittal Letter to PTO
Specification, Claims, Drawings (FIGS. 1-11)
Assignment & Assignment Recordation Cover Sheet
Declaration

cc: Mr. David S. Allison (w/encls.)

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